

ABSTRACT

A pressure sensor includes a housing, an interior chamber of which is sealed by a diaphragm, and a flexible measuring element, which is positioned separately. In addition, the pressure sensor includes a transmission element, which is formed as a chip and is used to transmit force from the diaphragm to the measuring element. In response to a selected deformation of the measuring element, a stop element comes into contact with a region of the transmission element and opposes the applied force. Therefore, it forms an overload protection. The stop element may be configured as a bending bar and/or form a second measuring element, the first measuring element being configured to measure relatively low pressures, and the second measuring element or stop element being configured to measure relatively high pressures. The pressure sensor thus provides a plurality of measuring ranges.